

1.6

Using Data to Predict

Curriculum Outcomes	Related Activities	Page in Text
<ul style="list-style-type: none">• create and analyze plots using appropriate technology• demonstrate an intuitive understanding of correlation	<ul style="list-style-type: none">• create scatter plots to display data that represent the relationship between two variables• describe patterns in the graphed data• determine a line of best fit• make predictions, both extrapolating and interpolating, using a line of best fit	42
<ul style="list-style-type: none">• use interpolation and extrapolation and the equation to predict and solve problems	<ul style="list-style-type: none">• rate their confidence level in interpolated and extrapolated predictions• equations for the line of best fit will be explored in Chapter 4	42

Scatter Plot

- Displays ordered pairs by using coordinates
- The independent variable is plotted on the horizontal axis
- The dependant variable is plotted on the vertical axis
- Points on the scatter plot often show a relationship, or pattern that can be identified

Line of best fit

- Drawn on a scatter plot
- Can be used to show the relationship between the two variables
- The line is not drawn between any particular points
- It is drawn through, or close to, as many points as possible

Relationships

- The arrangement of the points on the scatter plot and the corresponding line of best fit suggests a cause-and-effect relationship between the two variables.

Interpolate

- Make a prediction that falls between given pieces of data

Extrapolate

- Make a prediction that is outside the range of given values